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27 January 1964

MEMORANDUM FOR: Assistant for Plans and Development

SUBJECT: Trip Report, [redacted]
[redacted] 8 January 1964

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1. On 8 January 1964, [redacted] was visited to review the progress on the Phasolver contract. At present, they are running about a month to 6 weeks behind schedule due to difficulties in obtaining the required lofting work. To date, no major technical problems have been encountered. The target accuracy for the system is ± 1 micron over 10 inches with a resolution of $1/10$ of a micron.
 2. Time sharing the electronics was discussed and [redacted] stated that it would be possible for a two axis system to share the same electronics, thereby cutting the electronic requirement almost in half. In addition, they are studying time sharing the dual patterns required on each axis, thereby giving a further reduction in the electronics required. One potential problem area that may exist is the humidity requirement. On the angular phasolver, the unit is sealed in dry nitrogen, but this is not practical in the linear mode. They are considering special coatings to eliminate the humidity problem, but are waiting to test the new patterns being generated under Phase 2 before pursuing the coating concept.
 3. We restated our objective for the completion of Phase 2 to include a breadboard demonstration in Washington. This will require that we purchase some additional equipment not included in the contract. [redacted] agreed to provide a list of required equipment as soon as possible. He also agreed to furnish the name of the personnel that would present the demonstration as soon as possible so that adequate security measures can be taken.
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 4. Several people from [redacted] to inspect the Giant as a potential test bed for incorporating the phasolver as an additional test of the system. In their opinion, one axis of the system was not adequately built to support any useful test of the system. The Giant was therefore taken out as a possible follow on. It was agreed that we would review our requirement and come up with some recommendations around which [redacted] could prepare a follow on system.
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 5. Attendant at meeting were [redacted]

[redacted]
Development Branch, P&DS

Declassification Review by NGA

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